IN THE CLAIMS:

1.-14. (Cancelled)

15. (New) An optical disk control device comprising a digital signal processing means and an analog signal processing means,

said digital signal processing means comprising an A/D conversion command means for converting analog signals, and a serial transfer means,

said analog signal processing means comprising:

a playback signal detection means for detecting data recorded on a disk;

a serial reception means for receiving a signal transferred from the serial transfer means on the basis of a conversion command from said A/D conversion command means of the digital signal processing means; and

a signal switching means for successively selecting plural data signals obtained by the playback signal detection means, according to a signal received by the serial repection

means, and for time-division-multiplexing the selected signals; and

said digital signal processing means comprising:

an A/D conversion means for analog-to-digital converting a data signal transferred from the analog signal processing means;

an arithmetic processing means for performing arithmetic processing on the basis of a digital signal outputted from the A/D control means;

said A/D conversion command means for generating an A/D conversion command under an instruction from the arithmetic processing means; and

said serial transfer means for serially transferring a command signal from the A/D conversion command means.

16. (New) The optical disk control device as defined in Claim 15, comprising:

a plurality of said analog signal processing means; and

said A/D conversion means for successively selecting output signals from the signal switching means of the plural analog signal processing means on the basis of a command from the A/D conversion command means of the digital signal processing means, and for successively converting the selected output signals into digital signals.

17. (New) The optical disk control device as defined in Claim 15, wherein:

said analog signal processing means further comprises a sample hold means for sampling and holding an output signal from the signal switching means, on the basis of a signal transferred from the serial transfer means; and

said A/D conversion means is for converting an analog signal which is sampled and held by the sample hold means, into a digital signal, in place of an output signal from the signal switching means.

18. (New) The optical disk control device as defined in Claim 17, wherein

said analog signal processing means comprising a pair of the signal switching means and a pair of the sample hold means; and

said A/D conversion means is for converting analog signals which are sampled and held by the pair of the signal switching means and the pair of the sample hold means, into digital signals, in place of output signals from the pair of sample hold means.

19. (New) The optical disk control device as defined in Claim 15, wherein:

said serial transfer means controllable on the basis of the conversion command from the A/D conversion command means of the digital signal processing means; and

said signal switching means operable by a signal from the serial reception means of the analog signal processing means to select one of plural data signals obtained by the playback

signal detection means, for each conversion command, and for time-division-multiplexing and transferring the selected signals to the A/D conversion means of the digital signal processing means.

20. (New) The optical disk control device as defined in Claim 15, wherein:

said analog signal processing means further comprises a variable gain amplification means controllable by a state setting communication from the serial reception means for setting the internal state of the analog signal processing means;

said signal switching means operable by a signal from the serial reception means to select one of plural data signals obtained by the playback signal detection means, for each conversion command; and

the gain of the variable gain amplification means is settable by the state setting signal, which is transferred for each conversion command by the state setting communication, for

setting the internal state of the analog signal processing means.

21. (New) The optical disk control device as defined in Claim 20, wherein

said analog signal processing means comprises a pair of sample hold means for sampling and holding output signals from the signal switching means on the basis of a signal transferred from the serial transfer means, and a pair of the variable gain amplification means; and

the gains of the variable gain amplification means are settable by a state setting signal that is transferred for a pair of signals for each conversion command, and the pair of the sample hold means for simultaneously obtaining output signals from the signal switching means.

22. (New) The optical disk control device as defined in Claim 20, comprising:

a plurality of the analog signal processing means, each of the plural analog signal processing means comprising a pair of the sample hold means and a pair of the variable gain amplification means.